REMARKS

In this Response, claims 1, 2, 5, 19, 22, 36, 37, 53, 54, 72-74, 76-83, 85, 86, 88, 89, and 91 have been amended. Claims 18, 35, 52, 71, 75, and 93 are canceled, of which claims 18, 35, 52, 71, and 93 were previously canceled. Claims 1-17, 19-34, 36-51, 53-70, 72-74, and 76-92 are pending, of which claims 1, 19, 36, 53, 72-74, and 76 are independent. No new matter has been added.

I. Examiner Interview Summary

Applicant thanks the Examiner for the courtesy of the telephone interview conducted on June 24, 2008. During the interview, recommendations for expediting the prosecution of the application were discussed.

II. Claim Objections

The Examiner objected to claim 75 because of informalities. Claim 75 has been canceled. Thus, the claim objection is moot.

III. Summary of Claim Rejections

Claims 72-75 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter because "all the elements listed as comprising the system are all software elements only" (Office Action, § 5-5.1).

Claim 76 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter because "[o]nly a computer readable **storage or recording** medium ... is patentable" (Office Action, § 5, 5.2).

Claims 77-92 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter because of their dependence on rejected claims (Office Action, end of § 5).

Claims 1, 5, 36, 72, 74, 76 and 80 were rejected under 35 U.S.C. § 102(a) and (e) as being anticipated by McLean et al. ("Applying Temporal Databases to HLA Data Collection and

Analysis," Proc. of the 1998 Winter Simulation Conference) (hereinafter "McLean") (Office Action, § 7).

Claims 2, 19, 22, 37, 73 and 77 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson et al. (U.S. Patent 6,088,029) (hereinafter "Guiberson") (Office Action, § 10).

Claims 3, 20, 21, 23-25, 31-34, 38 and 78 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson and further in view of Eryilmaz et al. (U.S. Patent Application Publication No. 2003/0122826) (hereinafter "Eryilmaz") (Office Action, § 11).

Claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83 and 89-92 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Eryilmaz (Office Action, § 12).

Claims 9, 43 and 84 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Chen et al. (U.S. Patent 5,684,945) (hereinafter "Chen") and further in view of Mikurak (U.S. Patent 7,130,807) (hereinafter "Mikurak") (Office Action, § 13).

Claims 10, 44 and 85 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Herbrich et al. (U.S. Patent Application Publication No. 2004/0266526) (hereinafter "Herbrich") (Office Action, § 14).

Claims 11, 45 and 86 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Chen (Office Action, § 15).

Claims 12, 46 and 87 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Coburn et al. (U.S. Patent Application Publication No. 2004/0128120) (hereinafter "Coburn") (Office Action, § 16).

Claims 13, 47 and 88 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Mikurak (Office Action, § 17).

Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson and further in view of Eryilmaz and Chen and further in view of Mikurak (Office Action, § 18).

Claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson and further in view of Herbrich (Office Action, § 19).

Claim 28 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson and further in view of Chen (Office Action, § 20).

Claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson and further in view of Coburn (Office Action, § 21).

Claim 30 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McLean in view of Guiberson and further in view of Mikurak (Office Action, § 22).

Claims 53, 57-60, 66-70 and 75 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean (Office Action, § 23).

Claims 54-56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean and further in view of Guiberson (Office Action, § 24).

Claim 61 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean and further in view of Chen and Mikurak (Office Action, § 25).

Claim 62 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean and further in view of Herbrich (Office Action, § 26).

Claim 63 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean and further in view of Chen (Office Action, § 27).

Claim 64 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean and further in view of Coburn (Office Action, § 28).

Claim 65 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Eryilmaz in view of McLean and further in view of Mikurak (Office Action, § 29).

IV. 35 U.S.C. § 101 Rejections

A. Claims 72-75

The Examiner alleges that the subject matter of claims 72-75 could not be patented because "all the elements listed as comprising the system are all software elements only. A system with only software elements will not be operational and cannot be patented under 35 U.S.C. 101." (Office Action, § 5.1).

Claim 75 has been canceled. Thus the 35 U.S.C. § 101 rejection of claim 75 is moot.

Applicant has amended claims 72-74 to recite "an electronic device including: a memory for storing ... and a processor for executing ...," which Applicant believes is statutory subject matter. Accordingly, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 101 rejection of claims 72-74.

B. Claims 76 and 77-92

The Examiner alleged that the subject matter of claim 76 could not be patented because claim 76 recites a "computer-readable medium" and "[t]he medium is not defined in the specification ... [so] the medium could include carrier wave" (Office Action, § 5.2). Applicant has amended claim 76 to recite a "computer readable storage medium," as suggested by the Examiner.

Claims 77-92 depend from and incorporate all of the features of claim 76. Accordingly, claims 77-92 also recite a "computer readable storage medium."

For at least the reasons set forth above, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 101 rejection of claims 76-92.

V. 35 U.S.C. § 102 Rejection

The Examiner rejects claims 1, 5, 36, 72, 74, 76, and 80 as being anticipated by McLean. Applicant respectfully traverses the rejection for at least the reasons presented below.

A. Claim 1

Claim 1 recites:

> In a simulation environment, a computer-implemented method for controlling collection of data generated by a dynamic system model, comprising:
> providing the dynamic system model in the simulation environment on a computer system;
> providing a controller system separate from the dynamic system model on the computer system, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> one or more functions, the one or more functions executed by at least two of the data modules, and
> at least one controller controlling two or more of the data modules;
> activating the dynamic system model, thereby generating data; and
> controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller.

Applicant respectfully submits that McLean fails to disclose or suggest at least the following feature of independent claim 1: "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

McLean discloses that a temporal database "supports the storage and retrieval of temporal data objects" (p. 828, ¶ 4, lines 1-2). McLean, however, does not disclose or suggest that the Run-time Infrastructure (RTI) would control two or more of the temporal databases "to

simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time."

The Examiner references McLean, page 827, col. 2, ¶ 2, lines 1-6 as disclosing this feature. This passage states that "the processes may also collaborate to maintain synchronization," where *the processes* refers to the federates in a distributed simulation because "a distributed simulation [is considered] to be a set of logical processes" (page 827, col. 2, ¶ 2, lines 1-2 & col. 1, ¶ 4, lines 1-2). Thus, the synchronization discussed in this passage is the synchronization of federate execution in a distributed simulation and not the synchronization of any collection of data from the model. In addition, this passage does not disclose or suggest "controlling two or more of the data modules" where "the controlling [is] performed using the at least one controller." Instead, the passage states that "the processes may also collaborate." Applicant respectfully submits that collaboration is not equivalent to controlling.

The Examiner also references McLean, page 828, col. 1, ¶ 2, lines 1-4 as disclosing this feature. This passage discloses that the "RTI provides synchronization and time management services to govern the execution" of the simulation (page 828, col. 1, ¶ 2, lines 3-4) (emphasis added). Therefore, this passage also discloses synchronization of the simulation execution, and not the synchronization of any collection of data from the model. Although the passage states that the "RTI provides synchronization ... services," McLean does not disclose the details of such a service and does not disclose or suggest that the RTI provides services by "controlling two or more of the data modules."

The Examiner also references McLean, page 829, col. 1, ¶ 2 as disclosing this feature. This passage discusses the publication-subscription model of defining the relationship between federates, which are the entities in a distributed simulation that consume and produce data. McLean discloses that the RTI "transport[s] the data from the producers to the consumers that have subscribed to it" (McLean, page 829, col. 1, ¶ 2, lines 8-10). The transporting of data is performed according to the Interface Specification's data transfer mechanisms (page 828, col. 1, ¶ 1, lines 5-8). The RTI is an implementation of the High Level Architecture (HLA) for distributed simulations, and "the HLA does not specifically address data collection, either through the Rules, or the I/F Spec" (page 828, col. 1, ¶ 3, lines 1-2). Thus, McLean's discussion

of the RTI's implementation of the HLA does not disclose or suggest that the passing of messages between federates involves any data collection.

For at least the reasons set forth above, McLean fails to disclose or suggest each and every feature of claim 1. Accordingly, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 1.

B. Claim 5

Claim 5 depends from and incorporates all of the features of claim 1. Accordingly, claim 5 is patentable for at least the reasons set forth above for claim 1.

Furthermore, Applicant respectfully submits that McLean does not disclose or suggest that "the at least one of the functions includes a suspend function" and "the controlling simultaneously executes the suspend function at the two or more data modules to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate," as recited in claim 5.

The Examiner alleges that McLean discloses a suspend function on page 831, col. 1, ¶ 1, lines 1-4. Applicant respectfully disagrees. In the cited passage, McLean merely discloses that commands may be needed "to start and stop the collection process." McLean does not disclose or suggest how those commands are implemented. In particular, assuming that the Examiner equates McLean's temporal databases to Applicant's data modules, McLean does not disclose or suggest a suspend function executed by two or more temporal databases. In addition, McLean does not disclose or suggest that a controller is used to control two or more data modules to simultaneously execute the suspend function "to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate."

For at least the reasons set forth above, McLean fails to disclose or suggest each and every feature of claim 5. Accordingly, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 5.

C. Claim 36

Claim 36 recites:

> In a simulation environment, a computer-implemented method for controlling collection of data generated by a dynamic system model, comprising:
> providing the dynamic system model in the simulation environment on a computer system;
> providing a controller system separate from the dynamic system model on the computer system, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> a suspend function executed by at least two of the data modules, and
> at least one controller controlling two or more of the data modules;
> activating the dynamic system model, thereby generating data; and
> controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller.

Applicant respectfully submits that McLean fails to disclose or suggest at least the following feature of independent claim 36: "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller."

Applicant respectfully submits that McLean cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate" using the at least one controller since McLean does not disclose or suggest "a suspend function executed by at least two of the data modules." In addition, McLean does not disclose or suggest that the controlling is performed "to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate."

For at least the reasons set forth above, McLean fails to disclose or suggest each and every feature of claim 36. Accordingly, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 36.

D. Claim 72

Claim 72 recites:

> In a simulation environment, a system for controlling collection of data generated by a dynamic system model, the system comprising:
> an electronic device including:
> a memory for storing:
> computer program instructions for a simulation application that includes the dynamic system model, and
> data generated by the dynamic system model, and
> a processor for executing:
> the stored computer program instructions, the computer program instructions including instructions for initializing the simulation environment, and
> instructions for a controller system separate from the dynamic system model, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> one or more functions, the one or more functions executed by at least two of the data modules, and
> at least one controller to control two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time.

Applicant respectfully submits that McLean fails to disclose or suggest each and every feature of independent claim 72. For example, McLean does not disclose or suggest "at least one controller to control two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time" because McLean does not disclose or suggest that a controller is used "to control two or more of the data modules to simultaneously execute at least one of the functions" or that doing so "achieve[s] synchronization of at least one of collection or analysis of the generated data at a point in time."

For at least the reasons set forth above, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 72.

E. Claim 74

Claim 74 recites:

> In a simulation environment, a system for controlling collection of data generated by a dynamic system model, the system comprising:
> an electronic device including:
> a memory for storing:
> computer program instructions for a simulation application that includes the dynamic system model, and
> data generated by the dynamic system model, and
> a processor for executing:
> the stored computer program instructions, the computer program instructions including instructions for initializing the simulation environment, and
> instructions for a controller system separate from the dynamic system model, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> a suspend function executed by at least two of the data modules, and
> at least one controller to control two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate.

Applicant respectfully submits that McLean fails to disclose or suggest each and every feature of claim 74. For example, McLean does not disclose or suggest "at least one controller to control two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate" because McLean does not disclose or suggest that the RTI controls two or more temporal databases "to simultaneously execute the suspend function."

For at least the reasons set forth above, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 74.

F. Claim 76

Claim 76 recites:

> A computer-readable storage medium storing computer-executable instructions for controlling collection of data generated by a dynamic system model when executed by a processor, the medium storing instructions for:
> providing a controller system separate from the dynamic system model, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> one or more functions, the one or more functions executed by at least two of the data modules, and
> at least one controller controlling two or more of the data modules;
> activating the dynamic system model, thereby generating data; and
> controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller.

Applicant respectfully submits that McLean fails to disclose or suggest each and every feature of independent claim 76. For example, McLean does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller" because McLean does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions" using the at least one controller or that doing so "achieve[s] synchronization of at least one of collection or analysis of the generated data at a point in time."

For at least the reasons set forth above, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 76.

G. Claim 80

Claim 80 depends from and incorporates all of the features of claim 76. Accordingly, claim 80 is patentable for at least the reasons set forth above for claim 76.

Furthermore, claim 80 recites that "at least one of the functions includes a suspend function" and "the controlling simultaneously executes the suspend function at the two or more data modules to synchronously pause collection of the generated data by the controlled data modules while the dynamic system continues to operate." As discussed above with respect to claim 5, McLean merely discloses that there may be a need for a command to stop collection of data. McLean does not disclose or suggest a suspend function "executed by at least two of the data modules" or using a controller to control two or more data modules to "simultaneously execute" the suspend function "to synchronously pause collection of the generated data by the controlled data modules while the dynamic system continues to operate."

For at least the reasons set forth above, Applicant respectfully requests the Examiner to withdraw the above 35 U.S.C. § 102 rejection of claim 80.

VI. 35 U.S.C. § 103 Rejections

A. Claims 2, 19, 22, 37, 73, and 77

The Examiner rejects claims 2, 19, 22, 37, 73, and 77 as being unpatentable over McLean in view of Guiberson.

i. Claim 2

Claim 2 depends from and incorporates all of the features of claim 1. Accordingly, claim 2 is patentable for at least the reasons set forth above for claim 1.

Furthermore, Applicant respectfully submits that McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest at least the following feature of claim 2: "the controlling simultaneously executes the snapshot function at the two or more data modules to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules."

The Examiner alleges that Guiberson discloses a snapshot function, which the Examiner admitted was not found in McLean (Office Action, page 9, § 10.1). Applicants respectfully

disagree. Guiberson does not disclose or suggest Applicant's snapshot function, which is a function "executed by at least two of the data modules." Furthermore, Guiberson does not disclose or suggest that the controlling "simultaneously executes the snapshot function at the two or more data modules to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules."

Guiberson also fails to disclose or suggest the features of claim 1 that are missing from McLean. For example, Guiberson does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller." Thus, Guiberson does not cure the shortcomings of McLean with respect to claim 1.

For at least the reasons set forth above, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest all of the features of claim 2. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 2.

ii. Claim 19

Claim 19 recites:

> In a simulation environment, a computer-implemented method for controlling collection of data generated by a dynamic system model, comprising:
> providing the dynamic system model in the simulation environment on a computer system;
> providing a controller system separate from the dynamic system model on the computer system, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> a snapshot function executed by at least two of the data modules, and
> at least one controller controlling two or more of the data modules;

> activating the dynamic system model, thereby generating data; and
>
> controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller.

Applicant respectfully submits that McLean and Guiberson, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of claim 19: "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller." Neither McLean nor Guiberson discloses or suggests "controlling two or more of the data modules to simultaneously execute" any function using "the at least one controller." McLean and Guiberson are also both silent with respect to "synchronously freez[ing] a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules."

For at least the reasons set forth above, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest all of the features of claim 19. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 19.

iii. Claim 22

Claim 22 depends from and incorporates all of the features of claim 19. Accordingly, claim 22 is patentable for at least the reasons set forth above for claim 19.

Furthermore, Applicant respectfully submits that McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest at least the following feature of claim 22: "controlling a second two or more of the data modules to simultaneously execute a suspend function to synchronously pause collection of the generated data by the second two or more data

modules while the dynamic system model continues to operate, the controlling performed using the at least one controller." Neither McLean nor Guiberson discloses or suggests "controlling a second two or more of the data modules to simultaneously execute" any function. McLean and Guiberson are also both silent with respect to "synchronously paus[ing] collection of the generated data by the second two or more data modules while the dynamic system model continues to operate." In addition, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest controlling a first set of data modules to simultaneously execute one function and a second set of data modules to simultaneously execute a second function.

For at least the reasons set forth above, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest all of the features of claim 22. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 22.

iv. Claim 37

Claim 37 depends from and incorporates all of the features of claim 36. Accordingly, claim 37 is patentable for at least the reasons set forth above for claim 36.

Furthermore, Applicant respectfully submits that McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest at least the following feature of claim 37: "controlling a second two or more of the data modules to simultaneously execute a snapshot function to synchronously freeze a display of data collected by the second two or more data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the second two or more data modules, the controlling performed using the at least one controller." Neither McLean nor Guiberson discloses or suggests using a controller "to control two or more of the data modules to simultaneously execute" any function. McLean and Guiberson are also both silent with respect to "synchronously freez[ing] a display of data collected by the second two or more data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the second two or more data modules." In addition, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest controlling a

first set of data modules to simultaneously execute one function and a second set of data modules to simultaneously execute a second function.

For at least the reasons set forth above, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest all of the features of claim 37. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 37.

v. Claim 73

Claim 73 recites:

> In a simulation environment, a system for controlling collection of data generated by a dynamic system model, the system comprising:
> an electronic device including:
> a memory for storing:
> computer program instructions for a simulation application that includes the dynamic system model, and
> data generated by the dynamic system model, and
> a processor for executing:
> the stored computer program instructions, the computer program instructions including instructions for initializing the simulation environment, and
> instructions for a controller system separate from the dynamic system model, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system model,
> a snapshot function executed by at least two of the data modules, and
> at least one controller to control two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules.

Applicant respectfully submits that McLean and Guiberson, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of claim 73: "at least one controller to control two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the

freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules." Neither McLean nor Guiberson discloses or suggests using a controller "to control two or more of the data modules to simultaneously execute" any function. McLean and Guiberson are also both silent with respect to "synchronously freez[ing] a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules."

For at least the reasons set forth above, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest all of the features of claim 73. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 73.

vi. Claim 77

Claim 77 depends from and incorporates all of the features of claim 76. Accordingly, claim 77 is patentable for at least the reasons set forth above for claim 76.

Furthermore, Applicant respectfully submits that McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest at least the following feature of claim 77: "the controlling simultaneously executes the snapshot function at the two or more data modules to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules."

Guiberson does not disclose or suggest Applicant's snapshot function, which is a function "executed by at least two of the data modules." Furthermore, Guiberson does not disclose or suggest "the controlling simultaneously executes the snapshot function at the two or more data modules to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules."

Guiberson also fails to disclose or suggest the features of claim 76 that are missing from McLean. For example, Guiberson does not disclose or suggest "controlling two or more of the

data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller." Thus, Guiberson does not cure the shortcomings of McLean with respect to claim 76.

For at least the reasons set forth above, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest all of the features of claim 77. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 77.

B. Claims 3, 20, 21, 23-25, 31-34, 38, and 78

The Examiner rejects claims 3, 20, 21, 23-25, 31-34, 38, and 78 as being unpatentable over McLean in view of Guiberson and further in view of Eryilmaz.

i. Claims 3, 20, 38, and 78

Claim 3 depends from and incorporates all of the features of claim 2. Claim 20 depends from and incorporates all of the features of claim 19. Claim 38 depends from and incorporates all of the features of claim 37. Claim 78 depends from and incorporates all of the features of claim 77.

As discussed above with respect to claims 2, 19, 37, and 77, McLean and Guiberson, alone or in any reasonable combination, fail to disclose or suggest at least:

> "the controlling simultaneously executes the snapshot function at the two or more data modules to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules," as recited in claims 2 and 77,
>
> "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the

controlled data modules, the controlling performed using the at least one controller," as recited in claim 19, and

"controlling a second two or more of the data modules to simultaneously execute a snapshot function to synchronously freeze a display of data collected by the second two or more data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the second two or more data modules, the controlling performed using the at least one controller," as recited in claim 37.

Eryilmaz fails to cure the shortcomings of McLean and Guiberson with respect to claims 2, 19, 37, and 77. For example, Eryilmaz does not disclose or suggest using a controller to control "two or more of the data modules" so that they "simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules." Since McLean, Guiberson and Eryilmaz, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 2, 19, 37, and 77, they cannot disclose or suggest all of the features of dependent claims 3, 20, 38, and 78.

For at least the reasons set forth above, Applicant respectfully requests reconsideration and allowance of claims 3, 20, 38, and 78.

ii. Claims 21, 23-25, and 31-34

Claims 21, 23-25, and 31-34 depend from and incorporate all of the features of claim 19. As discussed above with respect to claim 19, McLean and Guiberson, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of claim 19: "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller."

Eryilmaz fails to cure the shortcomings of McLean and Guiberson with respect to claim 19. For example, Eryilmaz does not disclose or suggest "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller." Since McLean, Guiberson and Eryilmaz, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 19, they cannot disclose or suggest all of the features of dependent claims 21, 23-25, and 31-34.

Claim 21 also recites "manipulating the display of data collected while data continues to be collected." The Examiner acknowledges that McLean and Guiberson "do not expressly teach" this feature, but the Examiner alleges that Eryilmaz teaches this feature in two passages (Office Action, page 13, ¶ 3). Applicant respectfully disagrees. The first passage cited describes a basic graphical modeling environment and states that "a model editor ... is used by a user ... to construct and display a graphical block diagram model" and that there is also a "block diagram processing engine" and a "simulator" (Eryilmaz, page 2, ¶ [0026], lines 3-11). The only manipulation referred to in the passage is of the user creating the block diagram model. At that stage, no data is being generated or collected from an activated dynamic system model. In the passage, Eryilmaz does not disclose or suggest the collection of any data, so Eryilmaz cannot disclose or suggest the display of any data collected that could be manipulated. In the next cited passage, Eryilmaz discloses that a user may build models in a graphical modeling environment by selecting blocks from a library to add it to the current model (Eryilmaz, page 2, ¶ [0029], lines 1-12). This passage only discusses the process of building the model. Again, at this stage, the model is not "activated," so it is not generating data for collection and further display or manipulation. Therefore, Eryilmaz fails to disclose or suggest "manipulating the display of data collected while data continues to be collected."

For at least the reasons set forth above, McLean, Guiberson, and Eryilmaz, alone or in any reasonable combination, fail to disclose or suggest each and every feature of claims 21, 23-25, and 31-34. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 21, 23-25, and 31-34.

C. Claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83, and 89-92

The Examiner rejects claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83, and 89-92 as being unpatentable over McLean in view of Eryilmaz.

Claims 4, 6-8 and 14-17 depend from and incorporate all of the features of claim 1. Claims 39-42 and 48-51 depend from and incorporate all of the features of claim 36. Claims 79, 81-83 and 89-92 depend from and incorporate all of the features of claim 76.

As discussed above with respect to claims 1, 36, and 76, McLean fails to disclose or suggest at least:

> "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller," as recited in claims 1 and 76, and
>
> "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller," as recited in claim 36.

Eryilmaz fails to cure the shortcomings of McLean with respect to claims 1, 36, and 76. Eryilmaz is directed to an "adaptive lookup table block" in a graphical block diagram modeling and simulation module" (¶ [0024], lines 2-3; ¶ [0025], lines 3-4). Eryilmaz does not disclose or suggest a controller that controls two or more data modules to simultaneously execute any function. Thus, Eryilmaz cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller" or "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller." Since McLean and Eryilmaz, alone or

in any reasonable combination, do not disclose or suggest each and every feature of claims 1, 36, and 76 they cannot disclose or suggest all of the features of dependent claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83, and 89-92.

Claims 4, 39, and 79 also recite "manipulating the display of data collected while data continues to be collected." The Examiner acknowledges that McLean "does not expressly teach" this feature, but the Examiner alleges that Eryilmaz teaches this feature in two passages (Office Action, page 16, ¶ 2; page 18, ¶ 2; page 20, ¶ 3). Applicant respectfully disagrees. The first passage cited describes a basic graphical modeling environment and states that "a model editor ... is used by a user ... to construct and display a graphical block diagram model" and that there is also a "block diagram processing engine" and a "simulator" (Eryilmaz, page 2, ¶ [0026], lines 3-11). The only manipulation referred to in the passage is of the user creating the block diagram model. At that stage, no data is being generated or collected from an activated dynamic system model. In the passage, Eryilmaz does not disclose or suggest the collection of any data, so Eryilmaz cannot disclose or suggest the display of any data collected that could be manipulated. In the next cited passage, Eryilmaz discloses that a user may build models in a graphical modeling environment by selecting blocks from a library to add it to the current model (Eryilmaz, page 2, ¶ [0029], lines 1-12). This passage only discusses the process of building the model. Again, at this stage, the model is not "activated," so it is not generating data for collection and further display or manipulation. Therefore, Eryilmaz fails to disclose or suggest "manipulating the display of data collected while data continues to be collected."

For at least the reasons set forth above, McLean and Eryilmaz, alone or in any reasonable combination, fail to disclose or suggest each and every feature of claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83, and 89-92. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83, and 89-92.

D. Claims 9, 43, and 84

The Examiner rejects claims 9, 43, and 84 as being unpatentable over McLean in view of Chen and further in view of Mikurak.

Claim 9 depends from and incorporates all of the features of claim 1. Claim 43 depends from and incorporates all of the features of claim 36. Claim 84 depends from and incorporates all of the features of claim 76.

As discussed above with respect to claims 1, 36, and 76, McLean fails to disclose or suggest at least:

> "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller," as recited in claims 1 and 76, and
>
> "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller," as recited in claim 36.

Chen and Mikurak fail to cure the shortcomings of McLean with respect to claims 1, 36, and 76. Neither Chen nor Mikurak disclose or suggest a controller system with two or more data modules in which the controller is used to control "two or more data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time." Thus, Chen and Mikurak cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data while the dynamic system model continues to operate" using the at least one controller. Since McLean, Chen, and Mikurak, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 1, 36, and 76, McLean, Chen, and Mikurak, alone or in any reasonable combination, cannot disclose or suggest all of the features of dependent claims 9, 43, and 84. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 9, 43, and 84.

E. Claims 10, 44, and 85

The Examiner rejects claims 10, 44, and 85 as being unpatentable over McLean in view of Herbrich.

Claim 10 depends from and incorporates all of the features of claim 1. Claim 44 depends from and incorporates all of the features of claim 36. Claim 85 depends from and incorporates all of the features of claim 76.

As discussed above with respect to claims 1, 36, and 76, McLean fails to disclose or suggest at least:

> "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller," as recited in claims 1 and 76, and
>
> "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller," as recited in claim 36.

Herbrich fails to cure the shortcomings of McLean with respect to claims 1, 36, and 76. Herbrich does not disclose or suggest a controller system with two or more data modules in which the controller is used to control "two or more data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time." Thus, Herbrich cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data while the dynamic system model continues to operate" using the at least one controller. Since McLean and Herbrich, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 1, 36, and 76, McLean and Herbrich, alone or in any reasonable combination, cannot disclose or suggest each and every feature of dependent claims 10, 44, and 85.

Furthermore, claims 10, 44, and 85 recite "directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function." The Examiner alleges that Herbrich teaches this feature (Office Action, pages 23-24, § 14.1-3). Applicants respectfully disagree. Herbrich discloses the use of circular and linear buffers. However, Herbrich fails to disclose or suggest that the use of a buffer is directed "by executing a data buffering mode function," as recited in claims 10, 44 and 85.

For at least the reasons set forth above, Applicant respectfully submits that McLean and Herbrich, alone or in any reasonable combination, fail to disclose or suggest each and every feature of claims 10, 44, and 85. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 10, 44, and 85.

F. Claims 11, 45 and 86

The Examiner rejects claims 11, 45 and 86 as being unpatentable over McLean in view of Chen.

Claim 11 depends from and incorporates all of the features of claim 1. Claim 45 depends from and incorporates all of the features of claim 36. Claim 86 depends from and incorporates all of the features of claim 76.

As discussed above with respect to claims 1, 36, and 76, McLean fails to disclose or suggest at least:

> "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller," as recited in claims 1 and 76, and
>
> "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller," as recited in claim 36.

Chen fails to cure the shortcomings of McLean with respect to claims 1, 36, and 76. Chen does not disclose or suggest a controller system with two or more data modules in which the controller is used to control "two or more data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time." Thus, Chen cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data while the dynamic system model continues to operate" using the at least one controller. Since McLean and Chen, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 1, 36, and 76, McLean and Chen, alone or in any reasonable combination, cannot disclose or suggest each and every feature of dependent claims 11, 45 and 86. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 11, 45, and 86.

G. Claims 12, 46, and 87

The Examiner rejects claims 12, 46, and 87 as being unpatentable over McLean in view of Coburn.

Claim 12 depends from and incorporates all of the features of claim 1. Claim 46 depends from and incorporates all of the features of claim 36. Claim 87 depends from and incorporates all of the features of claim 76.

As discussed above with respect to claims 1, 36, and 76, McLean fails to disclose or suggest at least:

> "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller," as recited in claims 1 and 76, and
>
> "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the

controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller," as recited in claim 36.

Coburn fails to cure the shortcomings of McLean with respect to claims 1, 36, and 76. Coburn does not disclose or suggest a controller system with two or more data modules in which the controller is used to control "two or more data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time." Thus, Coburn cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data while the dynamic system model continues to operate" using the at least one controller. Since McLean and Coburn, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 1, 36, and 76, McLean and Coburn, alone or in any reasonable combination, cannot disclose or suggest each and every feature of dependent claims 12, 46, and 87.

Furthermore, claims 12, 46, and 87 recite "providing a time tracking function that directs a graphical display indication of a time history of data collected." The Examiner acknowledges that McLean does not disclose or suggest this feature, but alleges that Coburn discloses this feature (Office Action, pages 25-26, § 16.1-3). The cited passage discloses a way of visualizing the system operation of a manufacturing line (Coburn, page 4, ¶ 0052, lines 1-4). The "mechanical tool timing and sequencing" is specified using "either a bar chart timing diagram, a flow chart or some other suitable sequence specifying tool" (Coburn, page 1, ¶ 13, lines 1-4). The information specified "indicates the sequence of tool movements during the automated manufacturing process" (Coburn, page 1, ¶ 0013, lines 4-6). The visualization is "driven by the mechanical timing diagram such that, when the timing diagram indicates a specific resource movement, the video module plays the video clip associated with the specific movement" (Coburn, page 4, ¶ 0052, lines 7-11). Thus, Coburn discloses how to visualize a mechanical tool sequence by playing videos of tools in the order specified by the sequence. Coburn does not disclose or suggest that any data is being collected. Since data is not being collected, time history about the collected data cannot exist. Since Coburn does not disclose or suggest the existence of time history about collected data, Coburn cannot disclose or suggest "a time tracking function that directs a graphical display indication of a time history of data collected."

For at least the reasons set forth above, Applicant respectfully submits that McLean and Coburn, alone or in any reasonable combination, fail to disclose or suggest each and every feature of claims 12, 46, and 87. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 12, 46, and 87.

H. Claims 13, 47, and 88

The Examiner rejects claims 13, 47, and 88 as being unpatentable over McLean in view of Mikurak.

Claim 13 depends from and incorporates all of the features of claim 1. Claim 47 depends from and incorporates all of the features of claim 36. Claim 88 depends from and incorporates all of the features of claim 76.

As discussed above with respect to claims 1, 36, and 76, McLean fails to disclose or suggest at least:

> "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller," as recited in claims 1 and 76, and
>
> "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data by the controlled data modules while the dynamic system model continues to operate, the controlling performed using the at least one controller," as recited in claim 36.

Mikurak fails to cure the shortcomings of McLean with respect to claims 1, 36, and 76. Mikurak does not disclose or suggest a controller system with two or more data modules in which the controller is used to control "two or more data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time." Thus, Mikurak cannot disclose or suggest "controlling two or more of the data modules to simultaneously execute the suspend function to synchronously pause collection of the generated data while the dynamic system model continues

to operate" using the at least one controller. Since McLean and Mikurak, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 1, 36, and 76, McLean and Mikurak, alone or in any reasonable combination, cannot disclose or suggest each and every feature of dependent claims 13, 47, and 88. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 13, 47, and 88.

I. Claim 26

The Examiner rejects claim 26 as being unpatentable over McLean in view of Guiberson and further in view of Eryilmaz and Chen and further in view of Mikurak.

Claim 26 depends from and incorporates all of the features of claim 25.

As discussed above with respect to claim 25, McLean, Guiberson, and Eryilmaz, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 25. Chen and Mikurak do not cure the shortcomings of McLean, Guiberson, and Eryilmaz, with respect to claim 25. For example, Chen and Mikurak do not disclose or suggest "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that McLean, Guiberson, Eryilmaz, Chen, and Mikurak, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 26. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 26.

J. Claim 27

The Examiner rejects claim 27 as being unpatentable over McLean in view of Guiberson and further in view of Herbrich.

Claim 26 depends from and incorporates all of the features of claim 19.

As discussed above with respect to claim 19, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 19. Herbrich does not cure the shortcomings of McLean and Guiberson with respect to claim 19. For example, Herbrich does not disclose or suggest "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that McLean, Guiberson, and Herbrich, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 27. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 27.

K. Claim 28

The Examiner rejects claim 28 as being unpatentable over McLean in view of Guiberson and further in view of Chen.

Claim 28 depends from and incorporates all of the features of claim 19.

As discussed above with respect to claim 19, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 19. Chen does not cure the shortcomings of McLean and Guiberson with respect to claim 19. For example, Chen does not disclose or suggest "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that McLean, Guiberson, and Chen, alone or in any reasonable combination, do not disclose or suggest each

and every feature of claim 28. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 28.

L. Claim 29

The Examiner rejects claim 29 as being unpatentable over McLean in view of Guiberson and further in view of Coburn.

Claim 29 depends from and incorporates all of the features of claim 19.

As discussed above with respect to claim 19, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 19. Coburn does not cure the shortcomings of McLean and Guiberson with respect to claim 19. For example, Coburn does not disclose or suggest "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that McLean, Guiberson, and Coburn, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 29. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 29.

M. Claim 30

The Examiner rejects claim 30 as being unpatentable over McLean in view of Guiberson and further in view of Mikurak.

Claim 30 depends from and incorporates all of the features of claim 19.

As discussed above with respect to claim 19, McLean and Guiberson, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 19. Mikurak does not cure the shortcomings of McLean and Guiberson with respect to claim 19. For

example, Mikurak does not disclose or suggest "controlling two or more of the data modules to simultaneously execute the snapshot function to synchronously freeze a display of data collected by the controlled data modules, the freezing occurring while the dynamic system model continues to execute and the generated data continues to be collected by the controlled data modules, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that McLean, Guiberson, and Mikurak, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 30. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 30.

N. Claims 53, 57-60, 66-70, and 75

The Examiner rejects claims 53, 57-60, 66-70, and 75 as being unpatentable over Eryilmaz in view of McLean.

Claim 53 recites:

> A computer-implemented method for controlling collection of data generated by a dynamic system, comprising:
> providing the dynamic system;
> providing a controller system separate from the dynamic system on a computer system, the controller system including:
> at least two data modules, the data modules communicatively coupled to collect data from the dynamic system,
> one or more functions, the one or more functions executed by at least two of the data modules, and
> at least one controller controlling two or more of the data modules;
> activating the dynamic system, thereby generating data; and
> controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller.

Applicant respectfully submits that Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest at least the following feature of claim 53: "controlling two or more of the data modules to simultaneously execute at least one of the functions to

achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller." The Examiner acknowledges that Eryilmaz does not disclose or suggest this feature, but alleges that McLean does (Office Action, page 31, last ¶). Applicants respectfully disagree.

As discussed above with respect to claim 1, McLean does not disclose or suggest that the Run-time Infrastructure (RTI) would control two or more of the temporal databases "to simultaneously execute at least one of the functions" so that "synchronization of at least one of collection or analysis of the generated data at a point in time" is achieved. In addition, the cited passages disclose synchronization of simulation execution or the publication-subscription model of the HLA, so they do not disclose or suggest the synchronization of data collection. Thus, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53.

Claims 57-60 and 66-70 depend from and incorporate all of the features of claim 53. Thus, claims 57-60 and 66-70 are patentable for at least the reasons set forth above for claim 53.

Accordingly, Applicant respectfully requests reconsideration and allowance of claims 53, 57-60, and 66-70.

Claim 75 has been cancelled. Thus, the rejection of claim 75 is moot.

O. Claims 54-56

The Examiner rejects claims 54-56 as being unpatentable over Eryilmaz in view of McLean and further in view of Guiberson.

Claims 54-56 depend from and incorporate all of the features of claim 53.

As discussed above with respect to claim 53, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53. Guiberson does not cure the shortcomings of Eryilmaz and McLean with respect to claim 53. For example, Guiberson does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at

least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that Eryilmaz, McLean, and Guiberson, alone or in any reasonable combination, do not disclose or suggest each and every feature of claims 54-56. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 54-56.

P. Claim 61

The Examiner rejects claim 61 as being unpatentable over Eryilmaz in view of McLean and further in view of Chen and Mikurak.

Claim 61 depends from and incorporates all of the features of claim 53.

As discussed above with respect to claim 53, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53. Chen and Mikurak do not cure the shortcomings of Eryilmaz and McLean with respect to claim 53. For example, Chen and Mikurak, alone or in any reasonable combination with Eryilmaz and McLean, do not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that Eryilmaz, McLean, Chen, and Mikurak, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 61. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 61.

Q. Claim 62

The Examiner rejects claim 62 as being unpatentable over Eryilmaz in view of McLean and further in view of Herbrich.

Claim 62 depends from and incorporates all of the features of claim 53.

As discussed above with respect to claim 53, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53. Herbrich does not cure the shortcomings of Eryilmaz and McLean with respect to claim 53. For example, Herbrich does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that Eryilmaz, McLean, and Herbrich, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 62. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 62.

R. Claim 63

The Examiner rejects claim 63 as being unpatentable over Eryilmaz in view of McLean and further in view of Chen.

Claim 63 depends from and incorporates all of the features of claim 53.

As discussed above with respect to claim 53, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53. Chen does not cure the shortcomings of Eryilmaz and McLean with respect to claim 53. For example, Chen does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that Eryilmaz, McLean, and Chen, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 63. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 63.

S. Claim 64

The Examiner rejects claim 64 as being unpatentable over Eryilmaz in view of McLean and further in view of Coburn.

Claim 64 depends from and incorporates all of the features of claim 53.

As discussed above with respect to claim 53, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53. Coburn does not cure the shortcomings of Eryilmaz and McLean with respect to claim 53. For example, Coburn does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that Eryilmaz, McLean, and Coburn, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 64. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 64.

T. Claim 65

The Examiner rejects claim 65 as being unpatentable over Eryilmaz in view of McLean and further in view of Mikurak.

Claim 65 depends from and incorporates all of the features of claim 53.

As discussed above with respect to claim 53, Eryilmaz and McLean, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 53. Mikurak does not cure the shortcomings of Eryilmaz and McLean with respect to claim 53. For example, Mikurak does not disclose or suggest "controlling two or more of the data modules to simultaneously execute at least one of the functions to achieve synchronization of at least one of collection or analysis of the generated data at a point in time, the controlling performed using the at least one controller."

For at least the reasons set forth above, Applicant respectfully submits that Eryilmaz, McLean, and Mikurak, alone or in any reasonable combination, do not disclose or suggest each and every feature of claim 65. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 65.

CONCLUSION

In view of the above amendments and arguments, Applicant believes the pending application is in condition for allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicant's attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-029RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: July 21, 2008

Respectfully submitted,

Electronic signature: /Elaine Yang/
Elaine Yang
Registration No.: 60,054
LAHIVE & COCKFIELD, LLP
One Post Office Square
Boston, Massachusetts 02109-2127
(617) 227-7400
(617) 742-4214 (Fax)
Attorney/Agent For Applicant